

REMARKS

Information Disclosure Statement

In response to the Examiner's objection, Applicants submit herewith a corrected Information Disclosure Statement having a Form-1449 in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609, under which the prior submission was found to be deficient. In addition, several new references are cited from a related case. It is believed that the newly cited items do not impact the patentability of the pending claims.

Amendments to the Specification

Applicants have corrected two minor typographical errors in the Specification. The corrections to the specification are reflected in the amendments noted above at page 4.

The § 103 Rejections

Claims 37-49 presently stand rejected as allegedly obvious under 103(a) over Buckley (U.S. Patent No. 5,915,828) in view of Farrall (U.S. Patent No. 4,788,628) or King (U.S. Patent No. 5,311,409) or Waltz (U.S. Patent No. 4,757,425). This rejection is respectfully traversed.

Claim 37 is the only independent claim among claims 37-49, and will be addressed first, followed by the dependent claims. Claim 37 has been amended to

clarify the subject matter being claimed, and to improve its readability. Of the dependent claims, only claim 39 has been amended.

A brief review of Applicants' invention, as pertinent to the pending claims, may be helpful in focusing the issues raised by the instant Office Action. Applicants' invention according to claim 37 provides what may be colloquially termed a "soft light cannon" – a lighting apparatus well suited for motion picture production, television and the like that provides a powerful, front-projected, even and diffused light source capable of reaching large distances, integrated with a four-sided housing, a light mounting element, and a filter/diffusion element in a manner allowing easy maneuverability, controllability and versatility, and at the same time offering tremendous efficiency in a design compatible with high operating temperatures. The lighting apparatus generally comprises: (i) a 4-sided housing having a front; (ii) a lighting frame having a light mounting element; (iii) a plurality of par lamps supported by the light mounting element, such that the par lamps are directed toward the front of the housing; and (iv) a primary filter mounting element disposed between the par lamps and the front of the housing, whereby when a filter element for diffusing light is mounted in the primary filter holding element, light produced by the par lamps is directed therethrough to create a deeply projected soft light.

Prior to Applicants' invention, attempts to provide a soft or diffused light source for film or television typically involved use of space lights, soft lights or soft boxes having indirect reflected lights (such as bare bulbs with reflectors that run along their length). The light was sometimes reflected (or "bounced") off an interior

surface, thus spreading it more evenly, to create a soft light that falls off rapidly or a uniform light on a diffuser surface. The disadvantages of prior lighting systems are explained in the Background of the instant application, and include problems such as multiple shadows, uneven lighting, short illumination range, bulkiness, multiple parts, and low power efficiency, among other things.

Applicants' invention introduced an entirely new approach to the industry. The invention provides a long-range, directional diffused light source – a "soft light cannon" as mentioned above. The lighting apparatus of the invention allows soft light to be directly projected (rather than indirectly scattered) towards a desired subject. The use of multiple forward-facing par lamps directed towards a diffusion filter element allows projection of the long-range soft light that fills the diffusion space. The projected light can be easily directed and controlled because the key elements are incorporated in an integrated, easily movable housing. Prior to Applicants' invention, no one had thought to use multiple par lamps in a housing to provide a long-range projected diffusion light source.¹

Turning now to the merits of the Office Action, the primary reference relied upon in the Office Action is Buckley '828. That patent is directed to a "reflective lighting fixture" (col. 2:67 – 3:1) of the type generally suitable for short-range, indirect reflected lighting, i.e., a conventional "soft box" that is capable of producing a "controlled density of soft light." (Col. 1:45-49) This operation is highlighted by

the use of globe or bulb reflectors 34 positioned "in front of the bulbs 36" (col. 2:17-18), which cause the light to be indirectly scattered off rear reflector 38.

The Office Action notes that Buckley '828 does not disclose, among other things, the use of par lamps in his lighting system. (Office Action, at 5). Nonetheless, the Office Action states that it would have been "obvious" to one of ordinary skill in the art at the time of the invention to use the par lamps in Buckley's lighting system, because they provide "fast installation, quick and easy convertibility for various beams and low cost for maintenance." (Id. at 6) However, Applicants respectfully submit that one of ordinary skill in the art would not be inclined to substitute par lamps into Buckley's lighting system, and that, in addition, using par lamps in Buckley's system would not result in the claimed invention.

First, because the bulbs 36 are shielded by reflectors 34 such that they scatter light towards the back reflector 38, not towards the front of the housing, Buckley's apparatus is not a "**front projected** light device" as set forth in claim 37. Buckley's lighting system is based on indirect, scattered light, and operates in a substantially different manner from the claimed invention. Thus, merely substituting par lamps into Buckley's lighting system would not result in a lighting device in which "said par lamps are **directed toward said front**" of the housing, as required by claim 37.

¹ Applicants' commercial embodiment, known as TOPLIGHT, has been used in a variety of high profile movies and television productions, including: *Men in Black II*, *The Island*, *Looney Tunes*, *Spy Kids II*, *Fifty First Dates*, *8 Simple Rules*, *Bernie Mac*, *Six Feet Under*, *Alias*, and many other productions. Inventor Bruce L. Finn was awarded an Emmy® Certificate of Achievement by the Academy of Television Arts & Sciences for the TOPLIGHT, specifically for "Outstanding Achievement in Engineering Development Recognition for Contribution to the Efficiency and Productivity of Television Production."

In addition, the proposed combination of par lamps in Buckley's lighting system fails to take account of the unique aspects of par lamps that differentiate them from other conventional lamps, and would make the proposed combination non-obvious. Each type of lamp has distinct inherent qualities, and it is not common practice to merely "swap" one type of lamp for another without careful consideration of all of the consequences of doing so. This is especially true of the par lamp. Unlike lamps typically used in soft boxes such as Buckley '838, par lamps typically include a combination of a globe, an internal parabolic (including semi-parabolic) reflector, and an associated focusing lens (usually integrated with the lamp), that act in unison to form a projected, shaped beam of parallel light thrown over long distances, like a car headlight. Par lamps, unlike most other lamps, are therefore highly directional. They also project an enormous amount of light energy and generate intense heat. The prior art, including Buckley '828, either describes lamps that are significantly different from par lamps, and/or lighting fixtures which are unsuitable for use with par lamps and their specific requirements and characteristics.

Buckley '828 is, in fact, a good example of how par lamps would not be used. The use of reflectors 34 shows Buckley's intent to create a short-range soft, indirect light. Substituting par lamps – with their concentrated, projected beam light and associated focusing lenses – in Buckley's lighting device would in all likelihood result in uneven, harsh light. The enormous power and heat of par lamps could well overpower the subject and create harsh light, not to mention extremely uncomfortable heat, at the close range where Buckley intends his device to be

used. Besides being too powerful, intense, and hot for close range subjects, the par lamps would not uniformly illuminate the diffuser properly due to their highly focused photometrics – even if the reflectors 34 of Buckley '828 were removed and even if it occurred to someone to face the lamps in a forward direction. Because Buckley seeks to achieve a widely-dispersed diffuse light, one skilled in the art would not be inclined to modify Buckley to **reverse** the direction of the bulbs **and** substitute in highly-focused, narrowbeam par lamps for the omni-directional bulbs that Buckley uses.

In sum, par lamps would not only fail to fulfill the purpose of Buckley '828 in attempting to create close-range, soft and indirect light, they would actually destroy that purpose. It would simply have not occurred to someone skilled in the art at the time of the invention to place enormously powerful, high temperature, beamlike par lamps in Buckley's indirect light source.

It is respectfully submitted that none of the other three cited patents disclose or suggest the use of par lamps in such a manner either, and that claim 37 should therefore be allowable.

Claims 38-49 depend from claim 37, and should be allowable as depending from an allowable base claim. While further novel and distinct features exist in the dependent claims, a further explanation thereof is deemed unnecessary given the remarks already presented concerning claim 37.

Reservation of Right to Challenge Cited Items

While Applicants have addressed the cited items on the merits, this should not be construed as an admission that some or all of the cited items constitute prior art as against the claimed invention. Applicants reserve the right to antedate any of the cited items pursuant to the appropriate rules, laws, and regulations if deemed necessary to do so.

Likewise, Applicants' election to address the cited items on the merits should not be construed as an admission the items provide an enabling disclosure. Applicants reserve the right to challenge the sufficiency of the cited items at a later point in time, including in any post-issuance proceeding or suit, if appropriate.

Terminal Disclaimer

Claims 37-36 and 49 presently stand rejected under the judicially created doctrine of obviousness-type double patenting over various claims of co-owned U.S. patents 6,106,125, 6,588,912, and 6,719,434.

Although Applicant does not necessarily agree with the basis for these rejections, to expedite review prosecution of the application Applicant has filed a terminal disclaimer in compliance with 37 C.F.R. 1.321(c) with respect to the three issued patents, along with the required fee of \$65. It is respectfully submitted that the double patenting rejections are now moot.

New Claims

New claims 51-54 have been added.

New claim 51 is independent, and is similar to claim 37, but qualitatively describes certain salient features of a PAR lamp which provide particular advantages and benefits in the context of the claimed invention. It is respectfully submitted that claim 51 should be allowable for similar reasons to those expressed for claim 37.

New claims 52 and 53 depend from claim 51.

New claim 54 is also independent, and is similar to claim 50, which has been allowed. The main difference is that claim 54 recites that the primary and secondary filter holding elements are adapted to receive the primary and secondary filter elements rather than positively reciting them. Also some redundant language from the last clause has been removed, and the readability improved.

It is respectfully submitted that new claims 51-54 are in allowable form.

Request for Allowance

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any unresolved issue remains, the Examiner is invited to contact the undersigned by telephone to discuss those issues so that the Notice of Allowance can be mailed at the earliest possible date.

It is respectfully submitted that the instant application stands in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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Dated: December 23, 2005

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